

Applicant : Steven Allen Poll
Serial No. : 10/763,711
Page No. : 6

REMARKS

Applicant respectfully requests reconsideration of the above-identified patent application. Claims 1-15 remain in the application. Claims 1, 8, and 15 are amended to more particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully traverses the rejections as conceivably applied to the amended claims.

I. Specification

The specification is amended to provide literal support for the claim language calling for the cylindrical sidewall to be generally uniform in thickness between its ends. It is respectfully submitted that this amendment does not introduce new matter as prohibited by 35 U.S.C. 132(a). In particular, the drawings (e.g. Fig. 5) support the amendment.

II. Invention Summary

The present invention is directed to a compression cap having a generally uniform wall thickness and one or more inward deformations in the wall that provide a friction fit or interference fit between the cap and the outer surface of the pipe before the cap is crimped onto the pipe.

As defined in amended independent claims 1, 8, and 15 the wall of the compression cap is cylindrical, has two ends, has a generally uniform thickness between the ends, and includes at least one inward deformation. As shown in Fig. 5, the thickness of the sidewall 28 maintains uniformity even in the locations of the ribs 14, because both

Applicant : Steven Allen Poll
Serial No. : 10/763,711
Page No. : 7

the outer 34 and inner 44 surfaces of the sidewall 28 are deformed in the locations of the ribs 14. As further defined in claims 8 and 15, the cap is placed on the end of a conduit such that the inward deformation engages the conduit to provide a friction fit between the cap and the conduit. This fit prevents the cap from falling off the conduit before the cap is crimped.

III. Art Rejections

A. Section 102 Rejection Based on U.S. Patent 4,408,786 to Stuemky

As originally filed, claims 1-4, 6, 8-11, 13, and 15 were rejected under 35 U.S.C. 102(b) as being anticipated by Stuemky.

Stuemky discloses a ferrule for coupling a hose to a fitting. The ferrule is generally frustoconical in shape, and includes a sidewall with a non-uniform thickness between its ends. Specifically, the sidewall is tapered such that it decreases in thickness along its longitudinal length. Column 2, lines 57-60. The ferrule also includes a number of ribs that extend longitudinally from the inner surface of the ferrule. The thickness of the sidewall is increased in the locations of the ribs. Figs. 1 and 2. The ribs distribute the compression of the hose when the ferrule is crimped, by deforming the outer surface of the hose.

It is well settled that anticipation can only be established by a single prior art reference that identically discloses each and every element of the claimed invention. Anticipation is not shown even if the difference between the claims and the prior art reference are insubstantial. Instead, the cited reference must show exactly what is

Applicant : Steven Allen Poll
Serial No. : 10/763,711
Page No. : 8

claimed. In re Bond, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990); Structural Rubber Prod. Co. v Park Rubber Co., 749 F.2d 707, 223 U.S.P.Q. 1264 (Fed. Cir. 1984).

With respect to amended independent claims 1, 8, and 15, Stuemky does not disclose a sidewall that has a uniform thickness. Both the tapering of the sidewall and the ribs create a non-uniform wall thickness. Contrary to the present invention, Stuemky teaches the benefits of having a *non-uniform* wall thickness. Stuemky teaches that a tapered wall thickness is desirable to control the compression of the hose end during crimping. Col. 3, lines 16-23.

Additionally, with respect to amended claims 8 and 15, Stuemky does not disclose inward deformations that engage the hose to provide a friction fit. As shown in Fig. 5, Stuemky discloses deforming the outer surface of the hose dramatically by pinching the hose between the ferrule and the fitting when the ferrule is compressed. At col. 3, lines 16-20, Stuemky teaches that the ribs grip the reinforcement (which is embedded within the hose) and the inner surface of the ferrule grips the outer surface of the hose when the ferrule is compressed. The Stuemky fitting does not provide a friction fit. In fact, a friction fit is antithetical to the Stuemky construction.

In contrast to Stuemky, the ribs of the present invention provide a friction fit between the cap and the conduit. As shown in Fig. 6, the outer surface of the cap 10 retains its shape when the cap is compressed about the conduit and fitting. This difference can be attributed to the fact that the ribs disclosed by Stuemky and those disclosed by the present invention serve completely different functions. The ribs of the

Applicant : Steven Allen Poll
Serial No. : 10/763,711
Page No. : 9

present invention provide an interference fit with the conduit to hold the cap on the conduit before the cap is crimped, whereas the ribs disclosed by Stuemky forcefully engage the hose to aid in compression of the hose.

Because Stuemky fails to disclose all of the elements of amended independent claims 1, 8, and 15, it is respectfully submitted that the rejection based on Stuemky under Section 102 is unfounded and/or overcome, and therefore should be withdrawn.

B. Section 102 Rejection Based on U.S. Patent 1,006,671 to Myer

As originally filed, claims 1-4, 6, 8-11, and 13 were rejected under 35 U.S.C. 102(b) as being anticipated by Myer.

Myer discloses a thimble for coupling a hose to a fitting. The thimble has a wall with a frustoconical cross section and a non-uniform thickness. Coupling is provided by pinching the hose between the fitting and thimble when the fitting is screwed into the thimble. As shown in Fig. 1, the thimble 9 includes a frustoconical part 11 that defines an opening for receiving a hose end 15. The opening narrows as it approaches one end of the thimble 9. The thimble 9 also includes a plurality of longitudinal ribs 17 extending from its inner surface and a spiral rib 16 extending from its outer surface. The longitudinal ribs 17 and spiral rib 16 increase the wall thickness of the thimble in spaced locations. Shown in Fig. 2, the ribs 17 deform the outer surface of the hose 15 when the hose 15 is inserted into the thimble 9 and the fitting 6 is screwed into the hose 15. The frustoconical part aids in pinching the hose between the fitting and thimble.

Applicant : Steven Allen Poll
Serial No. : 10/763,711
Page No. : 10

With respect to amended independent claims 1, 8, and 15, Myer fails to disclose a cap that has either a cylindrical sidewall or a uniform wall thickness.

Additionally with respect to amended claims 8 and 15, Myer does not disclose inward deformations that provide a friction fit between the cap and the conduit.

Because Myer fails to disclose all of the elements of amended independent claims 1, 8, and 15, it is respectfully submitted that the rejection based on Myer under Section 102 is unfounded and/or overcome, and therefore should be withdrawn.

C. Section 103 Rejection Based on Myer in View of the Admitted Prior Art

As originally filed, claims 5, 7, and 12 were rejected under 35 U.S.C. 103 as being unpatentable over Myer in view of Applicant's admitted prior art in Figs. 1 and 2. Since claim 14 is included in the Examiner's discussion of this rejection, Applicant assumes that claim 14 is rejected on the same grounds.

The inadequacies of Myer with respect to the independent claims is noted above. Applicant's admitted prior art completely fails to supplement the inadequacies of Myer. In particular, the admitted prior art does not disclose, teach, or suggest a cap having a cylindrical sidewall with a generally uniform thickness, or a sidewall with inward deformations to provide a friction fit with a conduit.

Applicant therefore submits that the rejection of claims 5, 7, 12, and 14 under Section 103 is unfounded and/or overcome, and therefore should be withdrawn.

D. Dependent Claims

The remaining dependent claims further define Applicant's invention and

Applicant : Steven Allen Poll
Serial No. : 10/763,711
Page No. : 11

are therefore even more clearly allowable than the claims discussed above. Claim 2 further recites the inward deformation comprising at least one rib. Claims 3 and 10 further recite the inward deformation comprising at least one longitudinal rib. Claim 4 further recites the deformations approximately evenly spaced about the circumference of the sidewall. Claim 6 further recites the shoulder extending around the entire circumference of one end of the wall. Claim 9 recites a plurality of deformations spaced circumferentially around the cap. Claim 11 recites a shoulder extending radially inwardly from one end of the cap, and the conduit engaging the shoulder. Claim 13 recites a lip extending radially outwardly from a second end of the cap.

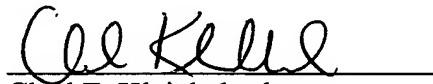
IV. Conclusion

In view of the above amendments and these remarks, Applicant respectfully submits that the present application is in condition for allowance. A notice to that effect is earnestly and respectfully requested.

Respectfully submitted,

TRANS-MATIC MFG. CO., INC.

By: Warner Norcross & Judd LLP



Chad E. Kleinheksel
Registration No. 53 141
900 Fifth Third Center
111 Lyon Street, NW
Grand Rapids, MI 49503-2487
(616) 752-2313